



My HealtheVet (MHV)

Technical Manual & Security Guide

Version 1.6

June 2015

**Department of Veterans Affairs (VA)
VHA OI Health Enterprise Strategy**

Revision History

Date	Version No.	Change	Author
6/13/05	1.0	Original Draft	Gary Monger
6/14/05	1.0	Added section on interaction with Outpatient Pharmacy	Gary Monger
6/22/05	1.0	<p>Modifications per Joe Tastrom:</p> <p>Page five, second paragraph under Benefits, "The national system a website available to all veterans on the"</p> <p>needs to be cleaned up, something like "The national system is comprised of a website available to all veterans on the"</p> <p>Under Prescription Refill Benefits, Release of Information, the I in information should be capitalized.</p> <p>Page 8 - I would include the required patches (PSO 204, DBA patch).</p> <p>Page 10 - Routine mapping, I would eliminate that, it's not an option on Cache for VMS</p> <p>Page 16 - Under the PSO INTERNET REFILLS OPTION I would add a reference to the specific PSO patch for documentation. Vista</p>	Curtis Anderson
8/22/05	1.0	Several updates per EVS review	Gary Monger

6/6/08	1.1	Updated with necessary revisions for MHV*1*1 and MHV*1*2	Bill Jutzi
9/8/08	1.2	Updated with necessary revisions for MHV*1*5 and MHV*1*6	Bill Jutzi David Ferguson
2/26/13	1.3	Updated with necessary revisions for MHV*1*10	Nagaraja Kumar Marri
2/25/15	1.4	Updated with necessary revisions for MHV*1*11	Nagaraja Kumar Marri
2/27/15	1.5	Technical Review	Liana Buciuman
3/4/15	1.6	Technical Writer Review	David Rawlins

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My HealtheVet and This Guide

My HealtheVet Benefits

My HealtheVet (MHV) is an online environment where veterans, family members and clinicians may come together to optimize veterans' healthcare. Web technology combines essential health record information with online health resources to enable and encourage veteran/clinician collaboration.

The My HealtheVet system consists of a national system housed at the Austin Automation Center (AAC), and the My HealtheVet VistA package. The national system is comprised of a website available to all veterans on the public internet at <http://www.domain.ext>, and its supporting database, application, and internet servers. More information on that system is available from the MyHealtheVet Product Homepage at <http://domain.ext/MyHealtheVet>.

The My HealtheVet VistA package supports the internet prescription refill functionality of the MHV website. It includes HL7 interfaces supporting queries for prescription information, and orders for refills.

My HealthVet Prescription Refill Benefits



My HealthVet prescription refill functionality allows patients to request refills of their prescriptions online, resulting in fewer refill requests made via mail and telephone. My HealthVet also allows veterans to get information on their current prescriptions, and their historical prescriptions. Online access to this information results in fewer calls to the pharmacy and Release of Information office.

My HealthVet Secure Messaging

Secure Messaging allows clinicians to save a message thread as a progress note. It leverages the TIUHL7 interface released with TIU*1*200. Full details of this interface can be found on the TIU page on the VistA Documentation Library here:

<http://www.domain.ext/vdl/application.asp?appid=65>

Secure Messaging admin queries allow information to be retrieved from VistA relating to patients, their providers, the clinics where they were seen, and the Primary Care Management Module (PCMM) teams they are assigned to.

Benefits of This Guide

This guide covers the technical and security aspects of the My HealtheVet VistA package. It describes implementation and maintenance features, interfaces, variables, relationships, and security management. This guide does not cover technical or security aspects of the national MHV system.

Our Target Audience

This guide is provided for members of the Information Resources Management (IRM) group who are responsible for maintaining and supporting this package.

The individuals within these groups should have the following experience or skills.

- Experienced with other Veterans Health Information Systems and Technology Architecture (VistA) software
- Experienced with the VistA Health Level 7 v 1.6 package

Other Sources of Information



TIP:

Bookmark these sites for future reference.

Refer to the Web sites listed below when you want to receive more information about My HealtheVet, and to download this manual and related documentation.

Background/Technical Information

From your Intranet, enter <http://domain.ext/MyHealtheVet> in the Address field to access the My HealtheVet Product Homepage.

This Manual and Related Documentation

From your Intranet, enter <http://www.domain.ext/vdl> in the Address field to access this manual, and those listed below, from the VistA Documentation Library (VDL).

- Installation Guide & Release Notes
- Technical Manual & Security Guide

The My HealtheVet website

From your Intranet, or the internet, enter <http://www.domain.ext>

Conventions Used In This Guide

Before installing My HealtheVet, review this section to learn the many conventions used throughout this guide.

- **Keyboard Responses:** Keys provided in **boldface**, within the copy, help you quickly identify what to press on your keyboard to perform an action. For example, when you see **ENTER** in the copy, press this key on your keyboard.
- **Screen Captures:** Provide “shaded” examples of what you will see on your computer screen, and possible user responses.
- **Notes:** Provided within the steps, describe exceptions or special cases about the information presented. They reflect the experience of our staff, developers, and testers.
- **Tips:** Located in the left margin, these helpful hints are designed to help you work more efficiently with My HealtheVet.
- **Menu Options:** Provided in italics. For example, You may establish Electronic Signatures Codes using the Kernel *Electronic Signature code Edit* [XUSESIG] option.

Locating Detailed Listings

You can obtain *and* print listings about My HealtheVet routines, and Data Dictionaries using the information provided below.

Routines

Use the Kernel routine XINDEX to produce detailed listings of routines. Use the Kernel *First Line Routine Print* [XU FIRST LINE PRINT] option to print a list containing the first line of every MHV routine.

Data Dictionaries

You can use the VA FileMan *List File Attributes* [DILIST] option, under the *Data Dictionary Utilities* [DI DDU] option, to print the dictionaries.

Implementation and Maintenance

Minimum Required Packages

Before installing My Health_eVet, make sure that your system includes the following Department of Veterans Affairs (VA) software packages and versions (those listed or higher).

Example: Minimum Required Packages and Versions

Package	Minimum Version Needed
Outpatient Pharmacy	7.0
Kernel	8.0
MailMan	8.0
VA FileMan	22.0
HL7	1.6
Master Patient Index VistA	1.0
Registration	5.3
Scheduling	5.3
Text Integration Utilities (TIU)	1.0
Order Entry/Results Reporting	3.0

Required Patches

Before installing My Health_eVet, make sure that your system includes the following Department of Veterans Affairs (VA) patches.

Package	Required Patch
Mailman	XM*DBA*150

Outpatient Pharmacy	PSO*7*204
Kernel	XU*8*284

Installation Time Estimates



IMPORTANT:

You should install My HealtheVet in your test accounts *before* installing in your production accounts.

On average, it takes less than three minutes to install My HealtheVet. Actual times may vary, depending on how your site is using its' system resources.

Suggested time to install: non-peak requirement hours.

Users may be on the system

Resource Requirements



TIP:

The original size of MHV is very small, a few KB, but upcoming releases may include functionality that would cause this global to grow.

This section summarizes the (approximate) number of resources required to install My HealtheVet.

- Routines 57
- Globals 1 (^MHV)
- Files 2 (2275.3, 2275.4)
- HL7 Applications 2
- HL7 Protocols 284
- Options 8
- ^MHV Size < 1KB

Response Time Monitor

My HealtheVet does not include Response Time Monitor hooks.

Files Required to Run My HealthVet



TIP:

The namespace for the My HealthVet package is MHV and the primary global is ^MHV.

My HealthVet uses the following files installed on the VistA system. “Journaling” is recommended.

- ^MHV (2275.3 MHV REQUEST TYPE

This file holds information about the types of query and order requests MHV supports. Data is sent with this file. Do NOT modify the contents or data structure of this file per VHA Directive 2004-038.

- ^MHV (2275.4 MHV RESPONSE MAP

This file is used to map response protocols and message builders from the incoming message type and event type. Data is sent with this file. Do NOT modify the contents or data structure of this file per VHA Directive 2004-038.

Note: You can learn more about these files by generating a list with file attributes using VA FileMan.

Routines Installed

Review the listing below to learn the routines installed on to your site’s VistA system during the installation of My HealthVet. The first line of each routine briefly describes its general function.

Do NOT modify these routines per VHA Directive 2004-038.

Note: You can use the Kernel *First Line Routine Print* [XU FIRST LINE PRINT] option to print a list containing the first line of each MHV routine.

Example: My HealthVet Routines Installed on to VistA Server

MHV1P0 MHV1P1 MHV1P2 MHV1P5 MHV1P6 MHV1P6B
MHV7B0 MHV7B1

MHV7B1B MHV7B2 MHV7B8 MHV7B9 MHV7B9A MHV7BU
MHV7BUS MHV7R1

MHV7R2 MHV7R4 MHV7R5 MHV7RU MHV7RUS MHV7T
MHV7TB MHV7U

MHVRQI MHVU1 MHVU2 MHVUL1 MHVUL2 MHVUL3
MHVXCLN MHVXDEMS

MHVXPAT MHVXPRV MHVXRX MHVXRXR MHVXTM MHVXUSR

MHV1P10 MHVXTIU MHV7R6 MHV7B1C MHV1P11 MHVXPAT
MHVXWLC MHV7B10 MHV7R5 MHV7R6 MHV7R7 MHVECFLR MHV7B1K
MHV7B1L MHV7B1M MHV7B1N MHV7B1O MHV7B1P MHVUMRPC

57 routines

Exported Options

My HealtheVet Menus

My HealtheVet exports user menu *MHV Application Log Menu* [MHV LOG MENU].

Security Keys

There are no security keys for My HealtheVet.

HL7 Application Parameters Installed

My HealtheVet uses the following HL7 application parameters installed on the VistA system.

- MHV EVAULT
- MHV VISTA
- MHV SM
- MHV TIU

HL7 Protocols Installed

My HealtheVet uses the following HL7 protocols installed on the VistA system.

- MHV MFN-Z01 Event Driver
- MHV MFN-Z01 Subscriber
- MHV QBP-Q13 Event Driver
- MHV QBP-Q13 Subscriber
- MHV OMP-O09 Event Driver
- MHV OMP-O09 Subscriber
- MHV ORP-O10 Event Driver
- MHV ORP-O10 Subscriber
- MHV RTB-K13 Event Driver
- MHV RTB-K13 Subscriber
- MHVSM ADR-A19 Event Driver
- MHVSM ADR-A19 Subscriber
- MHVSM MDM-T02 Event Driver

- MHVSM MDM-T02 Subscriber
- MHVSM QRY-A19 Event Driver
- MHVSM QRY-A19 Subscriber
- MHVSM QBP-Q11 Event Driver
- MHVSM QBP-Q11 Subscriber
- MHVSM RSP-K11 Event Driver
- MHVSM RSP-K11 Subscriber
- MHVSM QBP-Q13 Event Driver
- MHVSM QBP-Q13 Subscriber
- MHVSM RTB-K13 Event Driver
- MHVSM RTB-K13 Subscriber
- MHVSM DFT-P03 Event Driver
- MHVSM DFT-P03 Subscriber
- MHVSM ACK-P03 Event Driver
- MHVSM ACK-P03 Subscriber

HL7 Logical Link

My HealtheVet uses the following HL7 logical link installed on the VistA system.

- MHVVA

Archiving and Purging

Archive and Purge Capabilities



TIP:

Archive and purge capabilities are *not* available in My HealtheVet VistA.

My HealtheVet VistA Package does not store detailed patient information. Detailed prescription information is transmitted and stored with the My HealtheVet server in a secure “**eVAult**” for each patient.

Note: Detailed auditing of all transactions is maintained on the MHV national server.

Security Features

HL7 Messaging Security

My HealtheVet transmits patient information via HL7 messages across the intranet to the MHV server. My HealtheVet responds to synchronous HL7 queries, and requires the domain and station number of the sending application be defined.

Internal and External Relations

Internal Relations

This section describes options, package-wide variables, and templates within My HealtheVet.

Options

My HealtheVet includes the following options:

- Configure Logging Parameters [MHV LOG CONFIG]
- Display Log Information [MHV LOG INFO]
- Turn Off Logging [MHV LOG OFF]
- Turn On Logging [MHV LOG ON]
- Purge Log [MHV LOG PURGE]
- Display Log Size [MHV LOG SIZE]
- View Log Entries [MHV LOG VIEW]

Note: The log provides information of use to MHV developers, and should only be used by IRM staff in the event troubleshooting an MHV interface becomes necessary. The MHV User Manual provides information on how to use these options.

Package-Wide Variables

My HealtheVet does *not* include package-wide variables.

Templates

My HealtheVet does *not* include any templates for

| Sort, Input, or Print.

External Relations

My HealtheVet can only be run in an environment that already has several existing features, such as a standard MUMPS operating system.

It also requires the following Department of Veterans Affairs (VA) software packages (versions listed or higher) — and all current patches. Otherwise, My HealtheVet will *not* be fully functional.

- Outpatient Pharmacy 7.0
- Kernel 8.0
- MailMan 8.0
- VA FileMan 22.0
- HL7 1.6
- Master Patient Index VistA 1.0
- Registration 5.3
- Text Integration Utilities 1.0
- Scheduling 5.3
- Order Entry/Results Reporting 3.0
- Event Capture System 2.0

Callable Routines, Entry Points, and Variables

My HealtheVet does not support any callable entry points.

Integration Agreements (IAs)

My HealtheVet does not offer IAs to any other packages at this time. My HealtheVet utilizes the following Integration Agreements (IAs):

- Outpatient Pharmacy : 3768, 4687
- Kernel : 10141, 4440, 10103, 3065, 1373, 10104
- Mailman : 10070, 3779
- HL7 : 3552, 2161, 2164, 2165
- Master Patient Index VistA : 2701
- Registration : 10035, 10112
- Scheduling : 2692, 5250, 3859, 5265, 5266
- Order Entry/Results Reporting : 3859, 2692
- Event Capture System: 1873, 1874, 6009, 6010, 6011, 6012, 6013, 6016
- Patient Care Encounter: 1894
- PROBLEM LIST: 2741

- CPT/HCPCS CODES: 1995
- DRG GROUPER: 3990

Detailed information about these IAs is available on FORUM from the *Integration Agreements Menu* [DBA IA ISC] option located under the *DBA* [DBA] option (Data Base Administrator). Once in the Integration Agreements Menu Option, select “Inquire” and enter the IA number at the “Select INTEGRATION REFERENCES:” prompt.

My HealtheVet Rx Refill and Outpatient Pharmacy

New Procedures



TIP:

Process internet
refill requests
regularly by
running the PSO
INTERNET
REFILLS option.

Running *Automate Internet Refill* Option

The *Automate Internet Refill* option [PSO AUTO REFILL INITIALIZE] has been released by the Outpatient Pharmacy package for use with My HealtheVet.

The option is on the Maintenance (Outpatient Pharmacy) [PSO MAINTENANCE] menu that allows the sites to schedule/un-schedule a background job to automatically process refill requests placed via the Internet. It requires the PSOAUTRF key and generates MailMan messages by division to holders of the PSOAUTRF key with details of Not-Filled refills, unsuccessful runs, count of refills processed successfully, etc.

Note: Outpatient Pharmacy patch PSO*7*204, PSO*7*264, and the Outpatient Pharmacy User Manual has additional documentation regarding use of these options.

Communication

National My HealtheVet Server

The My HealtheVet VistA package responds to HL7 messages from the MHV server. It supports queries for prescription information and refill request orders.

Outpatient Pharmacy Package

The My HealtheVet VistA package requests refills and prescription information by calling APIs provided by the Outpatient Pharmacy package.

Prescription Information Queries

Prescription List Query

This query returns all active prescriptions for a patient. It can be filtered by specifying a list of prescriptions. API calls return the list and detailed information on each prescription.

Historical Prescription Query

This query returns all prescriptions for a patient. It can be filtered by date range and by specifying a list of prescriptions. API calls return the list and detailed information on each prescription.

Prescription Refills

Prescription Refill Request Order

Prescription refills are requested by an API call that determines if the refill can be requested based on the patient and prescription number provided. If the refill cannot be requested, for example the prescription number does not match the patient, or the patient does not exist, an error code is returned. Otherwise, the request is filed in a queue, the PRESCRIPTION REFILL REQUEST file# 52.43 for processing by the pharmacy.

The pharmacy processes requests via a scheduled background job. This job will process all pending requests in the queue, and updates the queue with the status of each refill request and date the prescription will be filled. If for some reason the prescription cannot be filled, for example it was already filled via MUMPS Audiofax, the status will indicate that it was not filled through MHV.

Prescription Refill Request Status

My HealtheVet can check the status of any request in the queue by an API call that returns the result of processing the refill request. The API may also return a code indicating that the request has not yet been processed, or an error code.

When processing is complete, and My HealtheVet picks up the status of the request, it will update the queue, the PRESCRIPTION REFILL REQUEST file# 52.43, by calling an API that will indicate that the status of the request has been transmitted to MHV.

My Health_eVet Secure Messaging

Overview

Secure Messaging allows patients and clinicians to communicate using email on the secure messaging server. The MHV package supports queries for information used by Secure Messaging to establish relationships between patients and their caregivers. The Secure Messaging is also able to save a message thread as a progress note through the TIUHL7 interface, which is developed and supported by the TIU package. Full details of this interface can be found on the TIU page on the VistA Documentation Library here:

<http://www.domain.ext/vdl/application.asp?appid=65>

Communication

National My Health_eVet Server

The My Health_eVet VistA package responds to HL7 messages from the MHV server. It supports queries for patient and provider information.

[Application](#) Parameters and HL7 protocols in the MHV namespace support the Secure Messaging use of the TIUHL7 interface. The TIU HL7 interface uses the MHVVA logical link for messages sent from VistA to the Secure Messaging Server.

Admin Information Queries

Demographics query

This query returns patient demographics information

User Query

This query returns all active users on the system.

PCMM Provider Query

This query returns all providers that are set up in the Primary Care Management Module (PCMM)

Clinics Query

This query returns all Clinics for the VistA system

Team Query

This query returns all OE/RR teams

Patients for provider Query

This query returns all patients that are assigned to a given provider

Patients for clinic Query

This query returns all patients that have an appointment at a given clinic within a date range.

Patients for Team Query

This query returns all patients assigned to a given team within a given date range

Patient Relationships Query

This query returns patient information of the given patient's clinics, providers and teams that the patient is assigned to.

Clinics by Stop Code Query

This query returns all SM Clinics for the VistA system that match given name and Credit Stop Code. The Credit Stop Code is set to 719 (SECURE MESSAGING).

Workload Credit
Queries and Filer

CPRS TIU Title Query

This query returns SM Computerized Patient Record System (CPRS) progress note titles that are associated with the SM Clinics.

DSS Units By Provider And Clinic Query

This query returns SM DSS Units that have access to given Provider and that are associated with given Clinic

ECS Procedures Query

This query returns Event Capture System Procedures that are associated with DSS Unit and Location.

Patient Eligibility and Classification Query

This query returns Patient Eligibilities (Primary and Secondary) and Classification information for a given Patient and Date.

Patient Problems Query

This query returns Patient Problems (Diagnosis Codes and Description) for a given Patient.

Diagnosis Query

This query returns list of Diagnosis codes and their description that match the search criteria (String).

SM Filer

This request files the workload credit into Event Capture System and returns the confirmation of filing workload and the associated Visit IEN.

Glossary

Learning My HealthVet Lingo

The alphabetical listing, in this section, is designed to familiarize users with the many acronyms and terms used throughout this guide.

Example: Alphabetical Listing of My HealthVet Acronyms and Terms

Acronym/Term	Definition
Archive	To transfer files from a computer onto long-term storage.
Client	An architecture in which one computer can get information from another. The Client is the computer that asks for access to data, software, or services.
CPRS	Computerized Patient Record System. A VistA software application that allows users to enter patient orders into different packages from a single application. All pending orders that appear in the Unit Dose and IV packages are initially entered through the CPRS package. Clinicians, Managers, Quality Assurance Staff, and Researchers use this integrated record system.
Data Dictionary	Also called "DD," the dictionary that contains file attributes.
eVault	A secure electronic storage area where veterans will maintain their Personal Health Record.
IA	Integration Agreement. A formal understanding between two or more application packages which describes how data is shared or how packages interact. This agreement maintains information between package developers, allowing the use of internal entry points or other package-specific features.
FileMan	The VistA database management system.
Journaling	A record of changes made in files and messages transmitted. It is quite useful when recovering previous versions of a file before updates were made, or to reconstruct updates if an updated file gets damaged.
Purge	To delete a set of data, and all references to the data.
RPC	Remote Procedure Call. A procedure stored on the VistA Server, which is executed to return data to the client.
RPC Broker	A client/server system within the VA's VistA environment. It enables client applications to communicate and exchange data with M servers.
Security Keys	Used to access specific options within My HealthVet that are otherwise "locked" without the security key. Only users designated as "Holders" may access these options.
Server	An architecture in which one computer can get information from another. The server, which can be anything from a personal computer

	to a mainframe, supplies the requested data or services to the client.
VistA	Veterans Health Information Systems and Technology Architecture.